Reflections

Received 23 April 1976

W. N. IRVING

LET ME SAY at the outset that this presentation is meant to be thoughtful and provocative. It is not meant to present new data, but rather to evaluate some that have recently come to light. Even if this paper is no more than provoking in its effect, it may well have had as much impact as it is intended to have, or deserves.

Next, I would like to acknowledge Fumiko Ikawa-Smith. She has set a very firm basis for me to take off on some rather tentative thoughts about the interrelations between North America and Asia. I was very glad to be reassured by her that Japan and the prehistory of Japan can be used as a window by North Americanists through which to observe what has been taking place in continental Asia. I am going to depend on that point of view quite heavily.

I was uncertain about preparing a title for this talk. It follows a paper that I presented in Ikawa-Smith's symposium in Montreal last year which was called "An Approach to the Prehistory of the Far East from Still Farther East." This one perhaps could be called "Further Reflections" on that paper or "Tricks with Mirrors across the Pacific Ocean." At that symposium I underwent a form of culture shock when Masakazu Yoshizaki described the results of his excavations at Shukubai, a site near Chitose in central Hokkaido. And in the same arena, Robert Fox described his new Paleolithic findings from sites in the Philippines. Now I think that I should have been prepared for this kind of enlightenment, but I was not and I am certain that most of my Canadian and American colleagues still are not prepared for it, and perhaps some of those in Japan, even though we all should have been prepared for it by the cautious and thorough analyses presented at various times by Serizawa, Ikawa, and others.

Now, at Shukubai, Yoshizaki and his colleagues have shown that there was a Palaeolithic culture characterized by geometric flakes with a minimum of marginal retouch, and so far as I know there is very little to be said in the way of generalization

W. N. Irving is a professor in the Department of Anthropology, University of Toronto. This article was transcribed from an oral presentation and edited by the author.

about it other than that. This was followed, as is shown by stratigraphy, by blade and burin industries, after an unknown interval, but I think not a very long one, and here I have to ask for advice from my Japanese colleagues. The Lower Shukubai material that I mentioned first has been radiocarbon dated to 21,400 years ago.

Now, leaping far afield, and leaving out the material that is comparable in Japan, which I cannot discuss with any authority, I will point out that Robert Fox in the Philippines at Tabon Cave in the south and Cagayan Valley in the north, with huge collections of implements, finds that a culture with geometric flakes and edge retouch and very little else persisted through many thousands of years of late Upper Pleistocene time. Fox suggests 50,000 years on the basis of faunal associations. There is the possibility that there is a general relationship between the Lower Shukubai material and that which Fox reports in the Philippines. And we might wish to take into consideration the redefinition of the Patjitanian of Southeast Asia that Bartstra also presented in Ikawa's symposium. Briefly, the Patjitanian, according to Bartstra, is to be called Upper Pleistocene and perhaps Late Upper Pleistocene, not Middle Pleistocene as had previously been thought. This work, of course, is still in progress.

We have to consider this in relation to what Ikawa-Smith has said about Yoshizaki's view that Lower Shukubai is perhaps to be compared with the Ordos industries in North China, Sjarra Osso Gol in particular and perhaps some others.

My first reaction on encountering this material is that I am more impressed by the relationship between Shukubai and the Philippine material than I am between that and the Ordos area, but this is something to be worked out. What this leads me to think is that at least in Hokkaido we have a very distinctive form of Early Paleolithic persisting until roughly 20,000 years ago in which there is very little trace of outside influence. And this may well have characterized the Philippines, parts of Southeast Asia, and possibly the mainland of China. At least in Hokkaido, it was followed by the dramatically sudden appearance of an industry that could be accommodated in a broad definition of the Western Upper Palaeolithic.

Now, this sounds, I'm afraid, like an attempt to restate the Movius-Ward theory of almost lethargic conservatism which Movius especially saw demonstrated by the chopper-chopping tool tradition. I hasten to say very emphatically that it is not an attempt to restate that point of view. I hope that my reason for saying so will become clear.

Let us take up next some New World evidence which I hope to bring to bear on this in a very general sort of way. At Old Crow in the northern Yukon Territory, we have what I think is firm evidence for the presence of man [*Homo erectus sp.*] at least as early as 30,000 years ago, and there are many other sites in the New World which in my view suggest that man was there much earlier than 20,000 years ago. This view is not now shared by everyone but nevertheless I think this view is going to prevail. For example, in Puebla, Mexico there are several radiocarbon dates that seem to indicate, in spite of the stratigraphic difficulties, at Valsequillo in particular, that man was present between 20,000 and 23,000 years ago. There the tool inventory is a very simple one of edge-retouched scrapers, flakes, and very few elaborate tools or complex tools, with one possible exception—not a trace of blade and burin industries. There is a possible blade associated with a radiocarbon date of, I think, 21,000 at the site of Tlapacoya in this same locality. For a really

thorough overview of remains of early man prior to, say, 15,000 years ago, I would refer you to recent papers by Alan Bryan, including the one in the Montreal symposium.

There is no sound basis for comparing these Mexican and other Early North American artifacts piece by piece with those from Shukubai or the Philippines and arriving at any sort of a sensible conclusion. But I think it is possible to think of Shukubai, Valsequillo, Tabon Cave, and Old Crow together and draw some sensible or perhaps at least interesting inferences. At Old Crow, the great majority of the many hundreds of bone artifacts have been made by percussion. Mammoth bone cores were used to produce flakes. There are some cases of grinding and polishing and a few of carving but the vast majority of the bone implements were made by percussion and were not modified any further.

Now comes the tricky part with the mirrors. I would like to suggest that the tool kits from Valsequillo, Old Crow, Lower Shukubai, and the two main site areas in the Philippines, because they include a very small number of types of cutting and scraping implements and no projectile points or specialized scrapers or evidence of the blade and burin technique, could all be part of a single technological tradition. Now of course, my problem, and I would like to make it everyone's problem, is to demonstrate that this is in fact true. I can suggest my reasons for thinking that it might be true but I cannot demonstrate it. One reason for thinking that it might be the case is that man was here in the New World well before so-called Upper Paleolithic materials, blade and burin industries, things of that sort, appeared in northern Japan, and quite possibly before there is any indication of this sort of thing in southern or western Japan. And it is to Japan that we must refer for chronological evidence. The evidence for man from continental northeastern Asia more than 20,000 years old is virtually nonexistent. The Djuktai culture and tradition that Mochanov speaks of do not bear a close relationship to this Early Palaeolithic technological tradition; they have no relation to it whatsoever that I can see. So it is at least reasonable to suggest that migrants into the New World of, say, 30,000 or more years ago brought with them a technology similar in general to that which we see at Lower Shukubai, for example, and elsewhere in Japan and in the Philippines and possibly in mainland China in the Ordos region.

I have suggested a technological tradition, but what is it if there is nothing left but a few flakes of stone and alternatively bone? I think that at this point one has to reconsider the definition of technology and think of it as a human way of adapting to an environment. In this sense, "technology" includes all those aspects of culture that have to do with getting and distributing food and shelter. As archaeologists it is perhaps a little radical to think in this way, but as prehistorians I think we must do this. We have to consider technology as not just the manufacture and use of tools. It is the larger survival system that we have to consider. If man was moving from the Far East to the Yukon and then on to highland Mexico more than 30,000 years ago, as seems to have been the case; if he brought with him only the "simplest" of stone and bone tools; then what can we infer of the other aspects of his technology —his life-support system?

In the first place, I would like to suggest that the simplicity of these tools is misleading. We can approach our problem this way: The point is that man apparently moved from a north temperate climate through a sub-Arctic one to an

Arctic climate, and then and only then did he move south again into the temperate and tropical parts of the New World. This traverse across climatic zones seems to me to be a single historical event and an important one. Its importance is clarified by the fact that whereas Peking Man was present in North China and north temperate areas at least 300,000 years ago, or Early Middle Pleistocene, there is no indication now that any kind of *Homo erectus* got to the New World. Let us assume that he did not come here. What kept him out? Why did he not move north and east? I think that it is likely that *Homo erectus* was culturally unprepared to cope with some of the obstacles that stood in his way.

Now it is useful in a very limited way to ask what these obstacles might have been. For example, an obstacle might have been cold winters. But Peking Man was living in an environment not much different than that of Grand Forks, North Dakota or Lincoln, Nebraska. I do not think that we should assume that *Homo erectus* at Peking was unable to clothe himself and look after himself in cold weather. If he was able to accommodate himself to the winters of North China he had already solved, at least in principle, the major problems of getting along in very cold weather. In effect, he only needed to put on another pair of fur socks or something of the sort in order to go much farther north. Once you have managed to protect yourself from a minor degree of cold, getting along in more cold just in terms of physiological protection simply means putting on more clothes, or making them a little better, and building better shelters. This is assuming that man's physiology with respect to environmental temperature was about the same then as it is now. I can think of no reason to believe otherwise.

Deep snow may have been a factor: throughout the Boreal Forest, deep snow requires the manufacture and use of snow shoes, which is a fairly complicated undertaking, And at present the Boreal Forest stands between Bering Strait and other habitable parts of the world. Generally poor biological productivity—there is a problem. It may well be that the Northern Coniferous Forest at that time was a totally different biotic province from what we know at this time and simply devoid of the animals that modern northern man depends on. Frozen lakes and rivers are an obvious hazard if early man had been in any way dependent on fish.

These suggestions are selected and somewhat conjectural. I think we have to assume some environmental obstacles and I have suggested some possibilities. But an obstacle that I would say is not likely to have been a significant one is Bering Strait itself. If it were the only obstacle then man should have crossed the land bridge in Illinoian times. In any case, if man built boats to go to Australia 30,000 years ago, he surely was capable of crossing Bering Strait at that time if not earlier—if he could get there in the first place. Another way to say it is that if man had the technical capability of getting to Bering Strait, he also had the ability to cross it.

Whatever the obstacles were, the evidence from the Yukon shows that man had overcome them 30,000 years ago and there is reason to believe that he did it with a tool kit not very different from that used at Lower Shukubai and in the Philippines. For this reason we have to infer for these cultures and others of that time a technological sophistication far beyond that which is indicated by the superficial appearance of the stone artifacts themselves.

I think that it would be a good thing to wind up by referring again to the Hanaizumi site that Fumiko Ikawa-Smith mentioned in her talk to this symposium

and the discovery and recent recognition there of tools made of bone. I should be most interested in finding out more about those. This tends to confirm my belief that Japanese prehistory continues to be the most effective window or telescope toward the prehistoric Far East that is available to us now, both because of the industry and sophistication of Japanese prehistorians and because of its proximity to the mainland of Asia itself.

REFERENCE

IKAWA-SMITH, FUMIKO, ed.
in press *Early Palaeolithic in South and East Asia.* The Hague: Mouton.